Summer Nuclear Engineering Institute at The University of Texas at Austin

Executive Summary

We propose to continue offering our one-month “Summer Nuclear Engineering Institute” at The University of Texas at Austin (UT-Austin). The Institute, offered for the first time in 2009 and being offered again in 2010, is funded by the NRC under a Nuclear Education Grant first awarded in September 2008. In anonymous written evaluations of the program, the 15 participating students from ten universities *unanimously* gave the 2009 Institute the highest possible rating when asked about the overall value of their experience. Student feedback also indicated that the highest-level goal of the Institute, to attract talented young people to careers in our industry, was met. Our proposal requests continued support of the Institute in 2011. Institute graduates will continue to receive room and board, a stipend, and six transferrable UT-Austin course credits.

The Institute serves undergraduates from outside of UT-Austin who are pursuing a degree in a discipline other than nuclear engineering (NE) as well as those who are working toward NE degrees at schools without a research reactor. Since industrial and regulatory employers will continue to require many new staff whose areas of expertise lie outside of the classical nuclear engineering disciplines, we continue to reach out to students who will fill these roles.

The primary technical objective of the Institute is to impart upon future nuclear professionals, including those from non-nuclear academic disciplines, the practical skills they will need when working in proximity to a nuclear reactor or in an environment where radiological hazards are present. The 1 Megawatt JJ Pickle TRIGA reactor at UT-Austin plays a central role in the Institute curriculum, as does the health physics instrumentation maintained at the UT-Austin Nuclear Engineering Teaching Laboratory. The core practical and experimental component of the Institute curriculum is complemented by classroom lectures providing a sound grounding in the fundamentals of health physics, nuclear reactor physics, nuclear systems engineering and practical applications of heat transfer and thermal fluid science to nuclear steam supply system and power generation engineering.

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